

# The Canadian Engineer

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## The Canadian Engineer.

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### THE TORONTO FIRE AND ITS LESSONS.

The night of April 19th, 1904, will long be remembered for the most disastrous fire from which Toronto ever suffered, a conflagration which far exceeds that which has ever visited any Canadian city in the value of property destroyed. By it a large part of the wholesale district of the city was wiped out. The fire broke out at 8 o'clock in the evening, and before it was got under control, in about 9 hours, 14 acres had been burned over and property to the value of nearly \$15,000,000 destroyed, with about \$10,000,000 of insurance. The fire had its useful lessons, to which all concerned would do well to take heed.

As to the origin of the fire, it is attributed to electric wires. Formerly all fires, the origin of which was obscure, were attributed to incendiarism. Now the electric wire has to bear the blame. Whether it was the cause of the Toronto conflagration or not will probably never be known. There is no doubt that electricity is a prolific cause of fires, and that many such disasters may be attributed to defective and unskilful wiring. There is danger also from short circuiting, the gnawing of insulating material by rats, and other causes which appear to be almost beyond control. It behooves property owners, electric contractors, insurance companies,

and all others who have to do with such matters to see that the utmost care is exercised in installing electrical apparatus, in order that the danger may be reduced to the minimum.

Though Toronto has an efficient fire brigade, which is fairly well equipped, it is evident that something is still wanting if they are to cope successfully with an extensive fire. After the Baltimore conflagration, which the Toronto one resembles in many respects, some of the business and insurance men who visited the scene were impressed with the desirability of having, in cities with a water front, a water service for fire purposes alone, and entirely separate from the ordinary waterworks. Had Toronto possessed such there is little doubt much property could have been saved on the night of the 19th. One of the chief difficulties the fire brigade had to contend with was poor pressure, and it stands to reason that if a large number of streams are being drawn from the mains the pressure must be greatly reduced. The proposition is that fire mains should be laid in the business part, with stationary steam or gasoline pumping engines on the water front, to be used for fire purposes only. The city council has asked for a report on the subject from the chief of the fire brigade, and there is little doubt what it will be, and that such a system will be installed in Toronto before long, as it has been in some cities in the United States.

Another suggestion is that all high buildings should be equipped with stand pipes and hose on every flat. With high buildings catching fire at the top, as most of those in the Toronto fire did, it is almost impossible to reach the fire with ordinary hose. Water towers are of some service, but even they fail to accomplish their object after buildings reach a certain height; and even then, as is the case with hose, the stream is scattered in the face of a high wind, such as prevailed in the Toronto fire. The automatic sprinkling system serves a useful purpose, and it was the means of saving the Kilgour factory and preventing the spread of the fire to Yonge Street. We expect to see this system more extensively introduced as a result of this lesson.

A fire tug would be a good thing to have in Toronto harbor. This was evident at the time of the fires at the west end of the island last year, and probably some of the property along the Esplanade which was burned in the recent fire might have been saved by such an appliance.

A dead wall is sometimes an efficient protection. The J. D. Ivey Co., at whose premises the fire stopped on Wellington Street West, attributed their escape largely to the fact that there were no window or door openings on the east side of their building. It must be remembered, however, that the direction of the wind was away from them. Where there are openings iron shutters are a great protection. They are of no use, however, unless they are in place and closed, and this was the case with some buildings at the Toronto fire.

Iron window frames, with iron sash, glazed with wire glass, should be more employed in large buildings. Wire